## INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B60J5/04

According to International Patent Classification (IPC) or to both national classification and IPC

## **B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B60J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMI	ENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 917 152 A (KAMEYAMA ET AL) 29 June 1999 (1999-06-29)	1-6, 15-18
Υ	column 2, line 60 - column 4, line 34; figures	7,8, 19-22
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 14, 5 March 2001 (2001-03-05) & JP 2000 318532 A (YAZAKI CORP), 21 November 2000 (2000-11-21) abstract; figures 1-6	1,4,6
Y	EP 1 129 875 A (MAZDA MOTOR CORPORATION) 5 September 2001 (2001-09-05) paragraph '0026!; figures 1-7 -/	7,8, 19-22

Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
<ul> <li>Special categories of cited documents:</li> <li>"A" document defining the general state of the art which is not considered to be of particular relevance</li> <li>"E" earlier document but published on or after the international filing date</li> <li>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</li> <li>"O" document referring to an oral disclosure, use, exhibition or other means</li> <li>"P" document published prior to the International filing date but later than the priority date claimed</li> </ul>	<ul> <li>"T" later document published after the international filling date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</li> <li>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>"&amp;" document member of the same patent family</li> </ul>
Date of the actual completion of the International search	Date of mailing of the International search report
23 March 2005	05/04/2005
Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Panatsas, A

## INTERNATIONAL SEARCH REPORT

Interion No PCT/US2004/038445

C.(Continua	ition) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	EP 1 275 540 A (BAYERISCHE MOTOREN WERKE AKTIENGESELLSCHAFT) 15 January 2003 (2003-01-15)	9
Α	paragraphs '0007!, '0024! - '0027!; figures	11-14
P,X	US 2004/155483 A1 (LIN JIH CHENG ET AL) 12 August 2004 (2004-08-12)	1-10, 15-18, 20-22
P,A	paragraphs '0013! - '0016!, '0071! - '0079!; figures 1-20	11-14
Ε,Χ	EP 1 486 366 A (MAZDA MOTOR CORPORATION; HIROTEC CORPORATION; GP DAIKYO CORPORATION) 15 December 2004 (2004-12-15) paragraphs '0037!, '0043! - '0052!, '0079!; figures 7-10	1,2,4-6
A	US 2002/167195 A1 (NAGEL THOMAS ET AL) 14 November 2002 (2002-11-14) paragraphs '0004!, '0017!, '0018!; claims; figures	1,15
A	US 5 927 020 A (KOBREHEL ET AL) 27 July 1999 (1999-07-27) column 5, lines 24-30 - column 6, lines 18-27; figures	1,15
A	EP 0 712 746 A (GENERAL MOTORS CORPORATION) 22 May 1996 (1996-05-22) abstract; figures	1,15

## INTERNATIONAL SEARCH REPORT

Information on patent family members

Internal Application No	
PCT/US2004/038445	

					<u></u>		
Patent document cited in search report			Publication date		Patent family member(s)		Publication date
US	5917152	A	29-06-1999	JP JP	3189208 10178729		16-07-2001 30-06-1998
JP	2000318532	Α	21-11-2000	NONE		<del></del>	
EP	1129875	A	05-09-2001	JP	2001239834	Α	04-09-2001
				TA	258856	T	15-02-2004
				DE	60101917	D1	11-03-2004
				DE	60101917		24-02-2005
				EP	1129875	· <del>-</del>	05-09-2001
				US 	2001017476	A1 	30-08-2001
EP	1275540	Α	15-01-2003	DE	10133421		23-01-2003
~~				EP	1275540	A2	15-01-2003
US	2004155483	<b>A1</b>	12-08-2004	CA	2434441	A1	03-01-2005
				AU	2003201418	A1	24-07-2003
				CA	2472631		17-07-2003
				US	2004084930	•	06-05-2004
				US	2004128917	A1	08-07-2004
EP	1486366	Α	15-12-2004	JP	2005001594		06-01-2005
				JP	2005008012		13-01-2005
				JP	2005001595		06-01-2005
				EP	1486366	<del>-</del>	15-12-2004
		دات جيبة ڪند ندد س	·	US	2005052050	A1 	10-03-2005
US	2002167195	<b>A1</b>	14-11-2002	DE	10109452	A1	05-09-2002
				EP	1234701		28-08-2002
				JP	2002264652	A 	18-09-2002
US	5927020	Α	27-07-1999	NONE			
EP	0712746	Α	22-05-1996	US	5535553	A	16-07-1996
				DE	69509614	<b>-</b>	17-06-1999
				DE	69509614	- —	02-09-1999
				EP	0712746	Δ 1	22-05-1996